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AMENDMENTS TO THE CLAIMS

Listing of claims:

1. (Currently amended): An apparatus, comprising:

a first segment comprising a first and second ladders and having a differential input, wherein the first ladder is coupled to a current sourcing input buffer, and wherein the second ladder is coupled to a current sinking buffer;

a second segment coupled to said first segment and having a differential output; and

at least one or more switches coupled between said first and second ladders to switch between said first and second ladders;

wherein a differential digital signal received at the differential input is converted to a differential analog signal at the differential output.

2. (Original): An apparatus as claimed in claim 1, wherein said first segment is a least significant bit section.

3. (Original): An apparatus as claimed in claim 1, wherein said second segment is a most significant bit section.

4. (Original): An apparatus as claimed in claim 1, wherein the first and second ladders comprise R2R ladders.

5. (Original): An apparatus as claimed in claim 1, wherein said second segment comprises a 2R pair array.

6. (Canceled)

7. (Original): An apparatus as claimed in claim 1, further comprising an impedance element to couple said first segment and said second segment.

8. (Original): An apparatus as claimed in claim 1, wherein the first and second ladders comprise R2R ladders and said second segment comprises a 2R pair array, said apparatus further comprising a resistor having a nominal value of R to couple said first segment and said second segment.

9. (Original): An apparatus as claimed in claim 1, wherein the first and second ladders comprise R2R ladders and said second segment comprises a 2R pair array, and wherein resistors of the first ladder are cross mixed with resistors of the second ladder on an integrated circuit.

10. (Original): An apparatus as claimed in claim 1, further comprising a filter coupled to the differential output, wherein said filter has a gain sufficient to not require a buffer between the differential output and the filter.

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11. (Currently amended): An apparatus, comprising:

a transceiver; and

an omnidirectional antenna coupled to said transceiver;

said transceiver including a digital-to-analog converter comprising:

a first segment comprising a first and second ladders and having a differential input, wherein the first ladder is coupled to a current sourcing input buffer, and wherein the second ladder is coupled to a current sinking buffer;

a second segment coupled to said first segment and having a differential output; and

at least one or more switches coupled between said first and second ladders to switch between said first and second ladders;

wherein a differential digital signal received at the differential input is converted to a differential analog signal at the differential output.

12. (Original): An apparatus as claimed in claim 11, wherein said first segment is a least significant bit section.

13. (Original): An apparatus as claimed in claim 11, wherein said second segment is a most significant bit section.

14. (Original): An apparatus as claimed in claim 11, wherein the first and second ladders comprise R2R ladders.

15. (Original): An apparatus as claimed in claim 11, wherein said second segment comprises a 2R pair array.

16. (Canceled)

17. (Original): An apparatus as claimed in claim 11, further comprising an impedance element to couple said first segment and said second segment.

18. (Original): An apparatus as claimed in claim 11, wherein the first and second ladders comprise R2R ladders and said second segment comprises a 2R pair array, said apparatus further comprising a resistor having a nominal value of R to couple said first segment and said second segment.

19. (Original): An apparatus as claimed in claim 11, wherein the first and second ladders comprise R2R ladders and said second segment comprises a 2R pair array, and wherein resistors of the first ladder are cross mixed with resistors of the second ladder on an integrated circuit.

20. (Original): An apparatus as claimed in claim 11, further comprising a filter coupled to the differential output, wherein said filter has a gain sufficient to not require a buffer between the differential output and the filter.